



City of New York
Department of Environmental Protection
Bureau of Engineering Design & Construction

MONTHLY PROGRESS REPORT

December 2016

(November 17 to December 16)

for

Administrative Settlement Agreement and Order
for Remedial Design, Removal Action and Cost Recovery

(Index No. CERCLA-02-2016-2003)

and

Administrative Order for Remedial Design

(Index No. CERCLA-02-2014-2019)

Dated: December 16, 2016

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1.0 NYC Gowanus Superfund Program Status Update

1.1 Red Hook CSO Facility

The City of New York (City) and the United States Environmental Protection Agency (EPA) entered into an Administrative Settlement Agreement and Order for Remedial Design, Removal Action and Cost Recovery (Index No. CERCLA-02-2016-2003) (Consent Order), which became effective June 9, 2016. The Consent Order provides that the City shall complete the Remedial Design (RD) for the Red Hook Combined Sewer Overflow (CSO) retention tank, which was selected as a component of the remedial action for the Gowanus Canal Superfund Site in EPA's September 27, 2013 Record of Decision (ROD). The RD of this CSO Tank, designated the "RH-034 Tank," was previously a requirement of an EPA Administrative Order issued May 28, 2014 (Index Number CERCLA-02-2014-2019) (RD UAO). A summary of the Consent Order's milestones and the status of each is set forth below, followed by a narrative description of work performed and anticipated and related issues.

Milestone Description	Deadline	Status
<i>Commence Environmental Impact Statement (EIS)</i>	<i>April 1, 2016</i>	<i>Completed</i>
<i>Issue Draft EIS/Certify ULURP</i>	<i>October 1, 2017</i>	<i>In Progress</i>
<i>Complete ULURP</i>	<i>May 1, 2018</i>	
<i>File Petition to Condemn</i>	<i>June 16, 2018</i>	
<i>Acquire Title</i>	<i>24 months after File Petition to Condemn or April 30, 2020, whichever is earlier</i>	
<i>Complete CP-1 Design Package</i>	<i>June 30, 2017</i>	<i>In Progress</i>
<i>Complete CP-02 Design Package</i>	<i>April 30, 2019</i>	<i>In Progress</i>
<i>Complete CP-03 Design Package</i>	<i>September 30, 2019</i>	<i>In Progress</i>
<i>Issue Notice to Proceed (NTP) to Contractor for CP-1</i>	<i>Not later than five months after acquisition of Parcels VI and VII, but in any event not later than May 1, 2020</i>	
<i>Mobilize for CP-1</i>	<i>Not later than 60 days after CP-1 NTP or 60 days after acquisition of Parcels VI and VII, whichever is later</i>	
<i>Complete CP-1 Construction</i>	<i>No later than 10 months after commencement</i>	
<i>Commence procurement to perform a response action at Parcels VI and VII within the footprint of the RH-034 Tank and any associated conduit areas</i>	<i>No later than the date on which National Grid commences response action on Parcels VI and VII outside the RH-034 Tank footprint</i>	
<i>Complete procurement for response action contractor</i>	<i>Within 12 months of commencement</i>	
<i>Perform a response action at Parcels VI and VII within the footprint of the RH-034 Tank and any associated conduit areas</i>	<i>Issue NTP within 30 days of completed National Grid response action; or within 30 days of completion of procurement, whichever is later</i>	
<i>Complete response action construction</i>	<i>Within 24 months of NTP</i>	

TABLE 1 - RED HOOK CSO FACILITY - MILESTONE STATUS SUMMARY

Work Performed Last Period

- On November 19, 2016 DEP submitted to EPA the Draft Pre-Design Investigation (PDI) Work Plan that defines the scope and methodology for activities needed to characterize soil and/or groundwater and, as necessary, to fill data gaps and design the response action at Parcels II, VI and VII within the footprint of the RH-034 Tank.
- DEP continued preparation of preliminary City Environmental Quality Review (CEQR) documentation for the RH-034 Tank Designs.
- DEP continued to coordinate with other City Agencies for property acquisition.
- DEP continued to communicate and coordinate with the City Department of Parks and Recreation and with private property owners to advance CP-1 pre-design investigation activities.
- DEP continued its preparation of technical memoranda and conducted internal technical workshops to progress the facility planning and design.
- DEP and EPA held a Technical Workshop on November 16, 2016 to review recent submittals and unresolved technical issues.
- DEP began preparation of the Treatability Study Work Plan that will define the scope and methodology for treatability testing to support the design of soil and/or groundwater treatment measures required during construction of the new facility.

Field Activity

- DEP continued site surveys and pre-demolition surveys on streets and properties around the RH-034 outfall.
- DEP began geotechnical investigation work at Parcels II and VI. Drilling began at Parcel VI on November 28, 2016 and Parcel II on December 2, 2016.
- DEP collected traffic and noise data in the vicinity of the RH-034 outfall.
- DEP performed closed caption television inspection of sewers around the RH-033 outfall.

Analytical Data

- DEP received data from pre-demolition survey sampling at Parcels I and II.

Anticipated Progress Next Period

DEP will:

- Continue preparation of preliminary CEQR documentation for the RH-034 Tank, analyze traffic and noise data, and continue development of the Draft EIS.
- Continue to coordinate with other City Agencies on property acquisition.
- Continue to communicate and coordinate with property owners to advance CP-1 design pre-demolition survey activities.
- Continue field investigations for asbestos and other hazardous materials for CP-1 design.
- Continue preliminary geotechnical investigation at Parcels II and VI. Complete preliminary investigation borings at Parcel VI. Mobilize for geotechnical investigation and perform soil

borings at Parcel VII.

- Continue preparation of the Draft Treatability Study Work Plan.
- Continue preparation of technical memoranda and conduct internal technical workshops to progress the facility planning and design.
- Coordinate with National Grid on their schedule and plans to perform pre-design investigation work at Parcels VI and VII.
- Receive comments from EPA on recent submittals including the Draft PDI Work Plan submitted on November 18, 2016.

Issues Encountered or Resolved and Efforts to Mitigate Delays

Below is a list of issues encountered during the design, including unresolved technical issues that could impede progress and potentially delay the schedule for the RH-034 Tank RD. If left unresolved, these issues could have a significant impact on the project schedule. A description of each issue, potential schedule impacts, efforts to mitigate delays and recommendations for resolution are provided below.

- **Scope and Design for Response Action**

EPA has questioned the need for any type of soil stabilization (ISS/ESS). DEP believes that some degree of stabilization will be required for excavation of the tank, whether in-situ or ex-situ.

Understanding the nature and extent of contamination at the site will allow DEP and EPA to evaluate treatment technologies and to design the response action for excavation within the footprint of the tank. Detailed design criteria cannot be established until that data is made available to DEP. The collection of this data is beyond DEP's control, as this activity is required to be undertaken by National Grid.

To further the data collection effort, DEC has directed National Grid to prepare a Preliminary Design Investigation (PDI) Work Plan for the RH-034 tank site (Parcels VI and VII). DEP has reviewed and commented on the PDI Work Plan. DEP recommends that the PDI activity proceed as soon as possible so that the data will be made available to DEP to enable it to establish design criteria and proceed with the environmental review, as well as additional PDI activities in a timely manner. Failure to acquire this information by early 2017 will result in delays to the environmental review and design schedule.

- **Coordination with Design of Cut-off Wall**

At the July 20, 2016 technical workshop, EPA directed DEP to proceed with design of the RH-034 Tank assuming a 50-ft setback from the existing Canal bulkhead. DEP is advancing the design to the extent possible based on this direction. Future changes in the setback distance will impact the design schedule. In addition, engineering analyses will need to be performed as soon as a final cut-off wall design is established by DEC and/or EPA to ensure coordination between the design of the support of excavation, underground structures and aboveground features with the cut-off wall.

Below is a list of technical issues resolved through technical workshops and/or follow-up discussions since the last reporting period. DEP is incorporating these decisions into the design; any re-opening of these issues could result in design schedule delay.

- **Selection of Location of CSO Tank Overflow Outfall**

At the November 16, 2016 technical workshop, EPA and DEP continued to discuss routing of the new tank effluent conduit and location of the new overflow outfall. For the RH-3 site, DEP is

considering three design alternatives; a new location consistent with the layout in the PRDR; routing through the existing RH-038 outfall; and, re-routing the overflow through the existing RH-034 outfall. For the RH-4 site, DEP is recommending location of the new effluent conduit and overflow outfall in Degraw Street at the existing RH-038 outfall. EPA and DEP agreed that continued evaluation of hydraulic conditions, constructability, maintenance and operations considerations, space constraints and coordination with the cut-off wall is required before determining the basis of design. DEP also stated that design of the new outfall will need to be coordinated with the Fulton cut-off wall.

DEP will proceed with facility planning and development of the Basis of Design Report for the alternatives and recommendations above. No schedule delay is anticipated at this time.

- **Routing of Influent Conduit for RH-034 Tank at RH-4 Site**

DEP explained that it continues to evaluate routing concepts shown in the PRDR for the influent conduit to the RH-034 Tank at the RH-4 site. As noted in the PRDR, there are significant constructability and operations issues associated with routing upstream of the RH-034 regulator to avoid acquisition of private property. As discussed in the PRDR, and through continued analysis, DEP still considers routing for the influent conduit through private property to be the preferred alternative. DEP agreed to continue to evaluate the alternatives before finalizing the basis of design.

EPA acknowledged that potential routing through private property would be an acceptable basis of design. DEP will continue to evaluate both options.

1.2 Owl's Head CSO Facility

The design of the Owl's Head CSO Facility, designated the "OH-007 Tank," is a requirement of the RD UAO. The UAO requires the City to complete the RD for the Owl's Head CSO retention tank, which was selected as a component of the remedial action set forth in the ROD. A narrative description of work performed and anticipated and related issues is set forth below.

Work Performed Last Period

- DEP continued preparation of technical memoranda and conducted internal technical workshops to progress the facility planning.
- DEP continued preparation of the Draft PDI Work Plan that defines the scope and methodology for activities needed to characterize soil and/or groundwater within the footprint of the OH-007 Tank.
- DEP began preparation of the Draft Geotechnical Investigation Work Plan that defines the scope and methodology for activities needed to progress the facility planning of the OH-007 Tank and design the bulkhead replacement.
- DEP continued preparation of preliminary CEQR documentation.
- DSNY continued construction of a salt storage facility at the OH-4 site.
- DEP and EPA held a technical workshop on November 16, 2016 to discuss technical issues.

Field Activity

No field activity this period.

Analytical Data

No data analysis performed this period.

Anticipated Progress Next Period

DEP will:

- Continue to coordinate with DSNY for access to perform facility planning and design activities.
- Continue to draft work plans, technical memoranda, and conduct internal technical workshops as part of the facility planning process.

Issues Encountered or Resolved and Efforts to Mitigate Delays

Below is a list of issues encountered during the design, including unresolved technical issues that could impede progress and potentially delay the schedule for the OH-007 Tank RD. If left unresolved, these issues could have a significant impact on the project schedule. A description of the issue, potential schedule impacts, efforts to mitigate delays and recommendations for resolution are provided below.

- **Access to Private Property for Pre-Demolition Surveys**

DEP is attempting to gain access to the private properties at OH-4. Unrestricted access will allow DEP to gather data to inform CP-1 design, develop an accurate cost estimate, schedule and bid package.

Failure to gain access will require DEP to make conservative assumptions about the layout, materials and characteristics of the buildings and operations on the properties in order to progress the CP-1 design.

DEP will utilize access to the adjacent City owned property to limit data gaps. DEP will continue to attempt to reach these owners to gain access.

Below is a list of technical issues resolved through technical workshops and/or follow-up discussions since the last reporting period. DEP is incorporating these decisions into the design; any re-opening of these issues could result in design schedule delay.

- **Establishment of Setback from Canal and Selection of Tank Configuration**

At the technical workshop on November 16, 2016, EPA stated that it does not require a setback from the Canal for the OH-007 Tank. EPA also indicated it does not have a preference or constraint associated with the layout or configuration of the OH-007 Tank, new bulkheads and other associated structures. EPA noted a preference for new bulkhead structures to encroach no greater than two feet into the Canal from the original Canal shoreline. DEP will proceed in developing concepts for alternative tank configurations to identify opportunities to reduce cost and schedule duration and limit property acquisition needs.

1.3 Carroll Street High Level Storm Sewer Pilot and Monitoring Program

DEP will conduct a stormwater treatment pilot and monitoring program in connection with the Phase I Carroll Street High Level Storm Sewer Separation (HLSS) project at the Gowanus Canal. This program includes installation of two hydrodynamic separator units, evaluation of alternative treatment technologies, sampling and data collection, flow monitoring, data analysis, and reporting. It also includes similar sampling and data collection, flow monitoring, data analysis, and reporting for three vortex units installed at the Lightstone development, also known as 363-365 Bond Street.

Work Performed Last Period

- New York City Department of Design and Construction (DDC) and DEP continued design efforts for the pilot vortex separator units.
- DEP continued to coordinate with DDC to prepare calculations and produce final design documents.
- At the November 16, 2016 technical workshop with EPA, DEP explained that potential vortex locations 2 and 3 are not feasible due to interferences with existing and recently relocated utilities. DEP will proceed with the design of the vortex unit installation at locations 1 and 4, which EPA agreed are the preferred locations.

Field Activity

- DDC's contractor continued construction work on the HLSS project, including the digging of test pits, utility relocations, and relocation of water mains.

Analytical Data

- No data analysis performed this period.

Anticipated Progress Next Period

DEP will:

- Finalize hydraulic calculations and establish final design specifications for the installation of two vortex units. DEP will continue to coordinate with DDC to modify the construction contract for the contractor to perform this work.

Issues Encountered and Efforts to Mitigate Delays

At this time, there are no significant technical issues that could impede progress and potentially delay the schedule for implementation of the stormwater treatment pilot and monitoring program.

1.4 First Street Turning Basin Restoration Design

The design of the restoration of the former First Street Turning Basin is a requirement of the RD UAO. This design was selected as a component of the remedial action set forth in the ROD. A narrative description of work performed and anticipated and related issues is set forth below.

Work Performed Last Period

- DDC and DCP met with two property owners, PMG and Powerhouse, on November 17, 2016 to discuss site access agreements for field activities.
- DDC is coordinating with City Law to prepare site access agreements.
- DDC is preparing individual work plans for field activities and submitted 4 work plans on December 16, 2016.
- DDC prepared and submitted draft minutes of the Technical Workshop.
- DDC has continued to evaluate EPA's schedule improvement suggestions.

Field Activity

- No field activity this period.

Analytical Data

- No data collected this period.

Anticipated Progress Next Period

- Send out draft site access agreement letters to PMG and Powerhouse.

Issues Encountered and Efforts to Mitigate Delays

At this time, there are no outstanding technical issues that could impede progress and potentially delay the schedule for implementation of the former First Street Turning Basin Restoration design.

1.5 Pilot Sponge Park

DEP has installed a Pilot Sponge Park at the intersection of 2nd St. and the Canal. The pilot project is intended to divert and filter surface water runoff and create a publicly accessible open space. A narrative description of work performed and anticipated and related issues is set forth below.

Work Performed Last Period

- DEP has prepared and submitted a response to EPA's latest comments on the QAPP and a revised QAPP on September 16, 2016.

Field Activity

- No field activity this period.

Analytical Data

- No data collected this period.

Anticipated Progress Next Period

- DEP will await EPA's response on the latest QAPP submission in hopes of initiating the performance monitoring.

Issues Encountered and Efforts to Mitigate Delays

DEP is awaiting EPA's response on the latest QAPP submission to implement the Pilot Sponge Park Water Quality Monitoring Program.

1.6 In-Canal Remedial Design

Participation as a work party in the In-Canal Remedial Design is a requirement of the RD UAO. This design was selected as a component of the remedial action set forth in the ROD. The City continues to participate as a Work Party in the In-Canal Remedial Design and to coordinate potential remedial design interfaces with City property such as bridges, bulkheads and the 1st Street Turning Basin. A separate detailed monthly report for this work is issued by National Grid on behalf of the work parties.